

REMARKS

The Office Action dated February 13, 2006 has been carefully considered. Claims 1-20 are pending in the application, with claim 1 being the only independent claim. Reconsideration of the application, as amended herein and in view of the following remarks, is respectfully requested.

Amendments to the Claims

Independent claim 1 has been amended to recite "each of said plurality of heat collecting plates being arranged such that a gap is defined between said each of said plurality of heat collecting plates and an adjacent one of said plurality of heat collecting plates so that heated air can pass through the gap" and "said plurality of heat collecting plates being in direct contact with a fuse metal". No new matter has been added as support for the amendment can be found, for example, in Fig. 4 and paragraphs [0051] and [0052] of the published specification.

New claim 20 depends directly from claim 1, and recites "said plurality of heat collecting plates are arranged one directly on top of the other in a stack, each of said heat collecting plates having a central section and a radially outer section, said gap being defined between said radially outer sections of adjacent ones of said heat collecting plates". Support for claim 20 can be found, for example, in Fig. 4 and paragraphs [0051] and [0052] of the published specification.

Dependent claim 19 is amended to remove a reference character from the claim.

Rejection of the claims under 35 U.S.C. §102 and §103

Claims 1-3, 5, 6, and 8 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,651,832 (Kubo).

Claims 9-11, 14 and 15 stand rejected under 35 U.S.C. §103 as unpatentable over Kubo in view of U.S. Patent No. 5,072,792 (Simons).

Claims 10-12, 14, 15, 17, and 18 stand rejected under 35 U.S.C. §103 as unpatentable over Kubo in view of U.S. Patent No. 5,038,616 (Polan).

Claims 13, 16 and 19 were each found to contain allowable subject matter and would be allowable if rewritten in independent form. It is noted that claims 4 and 7 are not expressly rejected. It is therefore presumed that claims 4 and 7 are also objected to as containing allowable subject matter and depending from a rejected base claim. Although the finding of allowable subject matter is greatly appreciated, applicants now present arguments for the allowability of amended claim 1.

Independent claim 1 is amended to recite “each of said plurality of heat collecting plates being arranged such that a gap is defined between said each of said plurality of heat collecting plates and an adjacent one of said plurality of heat collecting plates so that heated air can pass through the gap” and “said plurality of heat collecting plates being in direct contact with a fuse metal”.

Applicant respectfully submits that Kubo fails to disclose, either expressly or inherently, the above recitations of independent claim 1.

On page 2 of the Office Action, the Examiner refers to Figs. 4 and 5 of Kubo and alleges that elements 11 and 12 of Kubo constitute a plurality of heat collecting plates. As explained below, the Examiner’s interpretation is incorrect because the elements 11 and 12 of Kubo can not be considered to be heat collecting plates, as recited in claim 1.

Kubo discloses a sprinkler head in which a heat conductive plate 16 is connected to a heat conductive cylinder 13 and a heat conductive piston 14 (see col. 4, lines 32-35 and lines 50-54 and Fig. 4 of Kubo). The cylinder 13 and piston surround a fusible segment 17 (col. 4, lines 50-54 and Fig. 4). In Kubo, element 11 is a setting plate, which is connected with the connecting portion 10b of each of two levers 10. The element 12 is a balancer, which forcibly receives and counteracts the

rotation torque of the lower end portion 10a of each lever 10 (See Fig. 4; col. 4, line 50 to col. 5, line 13 of Kubo). As their names indicate, neither the setting plate 11 nor the balancer 12 functions as a heat collecting element. In addition, there is no indication in Kubo that the setting plate 11 or the balancer 12 has a heat collecting function. In contrast, Kubo discloses only that the plate 16, the cylinder 13, and piston 14 comprise heat conductive elements (see col. 4, lines 32-35 and lines 50-54 and Fig. 4 of Kubo). Moreover, as clearly illustrated in Figs. 4 and 5 of Kubo, neither the setting plate 11 nor the balancer 12 is in direct contact with the fusible segment 17--the setting plate 11 is disposed at a distance from the fusible segment 17 while the balancer 12 and the fusible segment 17 are separated by a heat sensitive cylinder 13.

Since the setting plate 11 and balancer 12 can not be considered to be heat collection plates, Kubo fails to disclose, teach or suggest "each of said plurality of heat collecting plates being arranged such that a gap is defined between said each of said plurality of heat collecting plates and an adjacent one of said plurality of heat collecting plates so that heated air can pass through the gap" and "said plurality of heat collecting plates being in direct contact with a fuse metal", as now expressly recited in independent claim 1.

In view of the foregoing, withdrawal of the §102(b) rejection of claim 1 is respectfully requested.

Polan and Simons also lack the claimed plurality of heat collection plates as now recited in independent claim 1. Accordingly, independent claim 1 is also allowable over all of the prior art of record.

Dependent claims 2-20 are patentable for at least the same reasons that independent claim 1 is patentable, as well as for the additional limitations recited therein.

New claim 20 depends directly from claim 1, and recites "said plurality of heat collecting plates are arranged one directly on top of the other in a stack, each of said heat collecting plates having a central section and a radially outer section, said gap being defined between said radially outer sections of adjacent ones of said heat collecting plates". None of the references cited in the Office Action disclose this claimed arrangement. Accordingly, claim 20 should be allowable for at least this additional reason.

In view of the foregoing, the application is deemed to be in condition for allowance, and such notice is respectfully requested.

It is believed that no fees or charges are required at this time in connection with the application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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